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L5 ANSWER 1 OF 1 WPINDEX COPYRIGHT 2007 THE THOMSON CORP on STN  
ACCESSION NUMBER: 1997-154224 [14] WPINDEX  
DOC. NO. CPI: C1997-049333 [14]  
TITLE: Block copolymer with oxyethylene and cyano, lactone or  
acid gps. - with functional gps. at end, useful as  
biodegradable material for bio-compatible micelles  
DERWENT CLASS: A14; A23; A25; A96; B04; B07; P11  
INVENTOR: KATAOKA K; KATO M; NAGASAKI Y; OKANO T  
PATENT ASSIGNEE: (KATA-I) KATAOKA K; (KATO-I) KATO K  
COUNTRY COUNT: 69

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 9706202	A1	19970220	(199714) *	JA	52 [0]	C08G085-00
AU 9666310	A	19970305	(199726)	EN		C08G085-00
NO 9705584	A	19971203	(199812)	NO		C08G000-00
EP 844269	A1	19980527	(199825)	EN		C08G085-00
JP 09508315	X	19980908	(199846)	JA		C08G085-00
HU 9900662	A2	19990628	(199931)	HU		C08G085-00
US 5929177	A	19990727	(199936)	EN		C08L071-02
BR 9610053	A	19990706	(199938)	PT		C08G085-00
NZ 313769	A	20000228	(200017)	EN		A61K047-48
KR 99014879	A	19990225	(200018)	KO	[0]	C08G085-00
CN 1192759	A	19980909	(200040)	ZH		C08G085-00
MX 9801148	A1	19990101	(200051)	ES		C08G085-00
AU 726749	B	20001116	(200103)	EN		C08G085-00
RU 2174989	C2	20011020	(200176)	RU		C08G063-06
MX 200791	B	20010202	(200224)	ES		C08F297-00
EP 844269	B1	20021023	(200277)	EN		C08G085-00
DE 69624488	E	20021128	(200303)	DE		
NO 314589	B1	20030414	(200328)	NO		C08G085-00
CN 1087317	C	20020710	(200523)	ZH		
JP 3711288	B2	20051102	(200572)	JA	29	C08G085-00 <-

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9706202	A1	WO 1996-JP2200	19960805
AU 9666310	A	AU 1996-66310	19960805
AU 726749	B	AU 1996-66310	19960805
BR 9610053	A	BR 1996-10053	19960805
CN 1192759	A	CN 1996-196186	19960805
CN 1087317	C	CN 1996-196186	19960805
DE 69624488	E	DE 1996-69624488	19960805
EP 844269	A1	EP 1996-925998	19960805
EP 844269	B1	EP 1996-925998	19960805
DE 69624488	E	EP 1996-925998	19960805
NZ 313769	A	NZ 1996-313769	19960805
NO 9705584	A	WO 1996-JP2200	19960805
EP 844269	A1	WO 1996-JP2200	19960805
JP 09508315	X	WO 1996-JP2200	19960805
HU 9900662	A2	WO 1996-JP2200	19960805
US 5929177	A	WO 1996-JP2200	19960805
BR 9610053	A	WO 1996-JP2200	19960805

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 KR 99014879 A  
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 DE 69624488 E  
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 KR 99014879 A  
 NO 9705584 A  
 NO 314589 B1  
 RU 2174989 C2  
 US 5929177 A  
 MX 9801148 A1  
 MX 200791 B  
 HU 9900662 A2

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 WO 1996-JP2200 19960805  
 \*\*\*WO 1996-JP2200 19960805\*\*\*  
 JP 1997-508315 19960805  
 \*\*\*JP 1997-508315 19960805\*\*\*  
 KR 1997-708224 19971118  
 NO 1997-5584 19971203  
 NO 1997-5584 19971203  
 RU 1998-104071 19960805  
 US 1998-11329 19980205  
 MX 1998-1148 19980210  
 MX 1998-1148 19980210  
 HU 1999-662 19960805

# FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 726749 B	Previous Publ	AU 9666310 A
DE 69624488 E	Based on	EP 844269 A
NO 314589 B1	Previous Publ	NO 9705584 A
AU 9666310 A	Based on	WO 9706202 A
EP 844269 A1	Based on	WO 9706202 A
JP 09508315 X	Based on	WO 9706202 A
HU 9900662 A2	Based on	WO 9706202 A
US 5929177 A	Based on	WO 9706202 A
BR 9610053 A	Based on	WO 9706202 A
NZ 313769 A	Based on	WO 9706202 A
KR 99014879 A	Based on	WO 9706202 A
AU 726749 B	Based on	WO 9706202 A
RU 2174989 C2	Based on	WO 9706202 A
EP 844269 B1	Based on	WO 9706202 A
DE 69624488 E	Based on	WO 9706202 A
JP 3711288 B2	Based on	WO 9706202 A

PRIORITY APPLN. INFO: JP 1995-204547 19950810  
 WO 1996-JP2200 19960805

## INT. PATENT CLASSIF.:

MAIN: C08F297-00; C08G085-00  
 SECONDARY: A61K047-48  
 IPC RECLASSIF.: A61K0009-107 [N,A]; A61K0009-107 [N,C]; A61K0009-51 [N,A]  
 ; A61K0009-51 [N,C]  
 ; C08F297-00  
 ; C08G0063-00 [I,C]  
 ; C08G063-66  
 ; C08G0063-664 [I,A]; C08G0063-676 [I,A]; C08G0063-91 [I,A];  
 C08G0065-00 [I,C]; C08G0065-26 [I,A]  
 ; C08G065-32  
 ; C08G0065-329 [I,A]; C08G0085-00 [I,A]; C08G0085-00 [I,C]; C08L0071-00  
 ; C08L0071-02 [I,A]

## BASIC ABSTRACT:

WO 1997006202 A1 UPAB: 20060112  
 Block copolymer of formula X-O-(CH<sub>2</sub>CH<sub>2</sub>O)<sub>m</sub>(Y)<sub>n</sub>-Z (I) is new. X = 1-10C alkyl (substd. by amino opt. with 1 or 2 protecting gps., opt. protected carboxy or opt. protected mercapto), or phenyl or phenylalkyl

(both ring-substd. as for alkyl); Y = -CO-CHR1-O-CO-CHR2-O-,  
-CO-(CH2)q-O-, -CH2-CH(CN)-, -CH2-C(Me)(CN)-, -CH2-CH(COOR4)- or  
-CH2-CMe(COOR4)-; R1, R2 = H, 1-5C alkyl; R4 = 1-5C alkyl (opt. substd.  
with opt. protected OH); q = 2-5; Z = H, acryloyl, methacryloyl, p-  
allyl,  
p-toluenesulphonyl, mercapto, alkyl (substd. by mono- or di-(1-5C  
alkyl)  
amino, opt. esterified carboxy, or aldehyde or its acetal) or halo; m,  
n  
= 2-10000.

Also claimed is a living block polymer of formula  
Xa-O-(CH2CH2O)m(Y)n-M (II). Xa = as for X, provided all functional gps.  
are protected; M = Li, Na, K or Cs.

USE - (I) are used in high mol. wt. micelles (claimed). The  
micelles are used as drug delivery carriers for targeted delivery, and  
nanospheres used for diagnostic procedures.

ADVANTAGE - The polymers have opt. different functional gps. at  
each end, and hydrophilic and hydrophobic gps. Constituent segments of  
the polymer are biodegradable. The polymer has surface functional gps.  
and is stable in H2O. The polymer can react with amine and thiol gps.

MANUAL CODE: CPI: A09-A07; A12-V01; A12-V03C2; B04-C03C; B12-K04;  
B12-M03